IN THE CLAIMS:

Please cancel Claims 23 and 27 to 45 without prejudice to or disclaimer of the subject matter presented therein. Please amend Claims 22, 24 to 26, and 52 as shown below.

1 to 21. (Cancelled)

22. (Currently Amended) A method for manufacturing a semiconductor device in which a plurality of electro-thermal conversion elements and a plurality of ~~switching devices~~ insulated gate type field effect transistors for flowing electric currents through said ~~plural~~ plurality of electro-thermal conversion elements are integrated on a first conductive type semiconductor substrate, said method comprising the steps of:

forming a second conductive type first semiconductor ~~layer~~ region on one principal surface of the first conductive type semiconductor substrate;

forming a gate insulator film on said first semiconductor ~~layer~~ region;

forming a gate electrode on said gate insulator film;

doping a first conductive type impurity by utilizing said gate electrode as a mask;

forming a second semiconductor region for providing a channel region of an insulated gate type field effect transistor of said plurality of insulated gate type field effect transistors, by diffusing said first conductive type impurity; and

forming (a) a second conductive type source region on the surface side of said second semiconductor region by utilizing said gate electrode as a mask such that the source region extends from beneath said gate electrode to beneath another gate electrode

formed on said gate insulator film and (b) a second conductive type drain region on the surface side of said ~~second conductive type~~ first semiconductor ~~layer~~ region.

23. (Cancelled)

24. (Withdrawn--Currently Amended) A method according to claim 22 ~~or~~ ~~23~~, further comprising the steps of:

performing a first conductive type ion implantation into at least a channel region put between said source region and said first semiconductor ~~layer~~ region on the surface side of said second semiconductor region through said gate electrode after said step of forming said second semiconductor region; and

performing a heat treatment for activating the implanted impurity electrically.

25. (Withdrawn--Currently Amended) A method according to claim 22 ~~or~~ ~~23~~, further comprising the steps of:

performing a first conductive type ion implantation into at least a channel region put between said source region and said first semiconductor ~~layer~~ region on the surface side of said second semiconductor region through said gate electrode after said step of forming said second semiconductor region; and

performing a heat treatment for activating the implanted impurity electrically,

wherein said ion implantation is ion implantation in which ions of boron are implanted in energy of 100 keV or more.

26. (Currently Amended) A method according to claim 22, wherein ~~or 23, wherein: at least two of said drain regions of MIS type field effect transistors being switching devices are~~ said drain region is provided in plurality, at least two of said plurality of drain regions being connected with the same one of said plurality of electro-thermal conversion elements, and ~~said sources of said plural MIS type field effect transistors are commonly~~ wherein said source region is provided in plurality, each of said plurality of source regions being connected with one another.

27 to 51. (Cancelled)

52. (Currently Amended) A method according to claim 22, wherein ~~the~~ said drain region is formed separately from an end of ~~the~~ said gate electrode.